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**ENERGY AND ENVIRONMENT CABINET  
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February 26, 2020

Ms. Mary Walker, Administrator  
U.S. E.P.A. Region 4  
61 Forsyth Street, SW  
Atlanta, GA 30303

RE: Water Quality Standards  
Kentucky Division of Water

Dear Ms. Walker:

Pursuant to 33 U.S.C. § 1313(c)(1) and 40 C.F.R. §131.20(a), the Kentucky Energy and Environment Cabinet ("the cabinet") submits the Kentucky water quality standards regulations, adopted during the 2018 Triennial Review process, for EPA approval.

Included with this letter are the water quality regulations (copies of both the marked-up and final regulations) that became effective on January 3, 2020:

- 401 KAR 10:001 Definitions for 401 KAR Chapter 10
- 401 KAR 10:026 Designation of uses of surface waters
- 401 KAR 10:029 General provisions
- 401 KAR 10:030 Antidegradation policy implementation methodology
- 401 KAR 10:031 Surface water standards

Also included with this letter are:

- A statement from the cabinet's General Counsel certifying that the regulations were promulgated and adopted pursuant to Kentucky law, and specifically Kentucky Revised Statutes Chapter 13A;
- A copy of the Statement of Consideration for the regulations which is the document that responded to public comments the cabinet received, and that was filed with the Kentucky Legislative Research Commission pursuant to KRS Chapter 13A; and
- Supporting documentation for the adoption of Exceptional Waters and Outstanding State Resource Waters.

The cabinet's primary objectives in the 2018 Triennial Review were to:

- Review applicable water quality standards and, where appropriate, modify and adopt those standards;
- Add qualifying water bodies to the antidegradation category of Exceptional Waters
- Designate qualifying water bodies as Outstanding State Resource Waters (OSRWs);
- Review applicable designated uses for all surface waters; and

- Review and amend aquatic life and human health criteria to reflect national §304(a) recommended criteria, as appropriate.

To achieve these objectives, the cabinet took actions that included the following:

#### **401 KAR 10:001 Definitions for 401 KAR Chapter 10.**

- Added six (6) definitions and clarified twelve (12) definitions to align with other KAR Chapters and for consistency
- Removed fourteen (14) terms that are no longer relevant nor used in Chapter 10. Those terms are primarily related to the KPDES program, and were not removed in 2008 when water quality standards were separated from the KPDES regulations and recodified from 401 KAR Chapter 5 to Chapter 10.

#### **401 KAR 10:026 Designation of uses of surface waters**

- Added the following: references to CFR regarding affirmative findings for redesignation to align with federal requirements, alternatives for examining economic and social impacts of unattainable uses, re-examination of waterbodies that do not include specified uses every 5 years to determine if new information is available, designated uses for 57 basins, streams, or stream segments. The latter changes are being made pursuant to Section 3(2) of this regulation, and the automatic inclusion clause of 401 KAR 10:031 Section 8(1)(a)3, based on the presence of threatened or endangered species.
- Changed Section 3 to limit the documentation to change the designated use to OSRW, which are subject to automatic inclusion if the waters support federally listed threatened or endangered species.
- Revised Table B to reflect the current locations of domestic water intakes, removing the "Description" column, and adding columns for Wastewater and Public Water System permit identification numbers, as well as location by latitude and longitude, for more accurate identification of intake locations.
- Revised Table C by adding waterbodies and receiving waters, boundary description, and latitude and longitude, and removing exceptions for redundancy, to more accurately identify locations
- Newly incorporated by reference: the "Combined Sewer Overflows – Guidance for Financial Capability Assessment and Schedule Development", EPA, February 1997, which is used to evaluate and consider economics during the process of establishing or revising water quality standards, and the CSO Control Policy of April 1994 which is used, in part, to develop and update CSO alternatives analyses. This aligns WQS with policy decisions made regarding CSOs consistent with the Clean Water Act CSO Policy in order to effectively permit residual CSOs after full implementation of approved LTCP.

#### **401 KAR 10:029 General provisions**

- Clarified that the purpose of 401 KAR Chapter 10 is to protect both existing and designated uses of surface waters of the commonwealth
- Formalized the removal of mixing zones for bioaccumulative chemicals of concern which were phased out on September 8, 2014

#### **401 KAR 10:030 Antidegradation policy and implementation methodology**

- Revised Tables 1 and 2 to include columns for waterbodies and receiving waters, replace river miles with latitude and longitude instead, and revise boundary descriptions for more accurate location of streams and stream segments.
- Included 29 additional streams or stream segments based on excellent fish and/or macroinvertebrate communities, comprising approximately 114.35 miles of surface waters newly categorized as Exceptional Waters, resulting from routine watershed monitoring and

investigations of potential waters affected by permitted activities since the revisions to this administrative regulation in 2015.

- Clarified that surface waters that do not fully support any designated use shall be categorized as impaired, except for Outstanding or Exceptional waters, or those that are impaired only for mercury or methylmercury as it applies to fish consumption

#### **401 KAR 10:031 Surface water standards**

- Updated the cadmium aquatic life criteria, established aquatic life criteria for Carbaryl (based on EPA 2012 recommended criteria), established aquatic life criteria for selenium in fish tissue for specified fish, and retained current criteria for copper, but allows application of the EPA's 2007 Copper Biotic Ligand Model for site-specific copper aquatic life criteria
- Removed the outdated surface water temperature guideline table, fecal coliform criteria for primary contact recreation use, and the nitrite-nitrogen human health criterion for the main stem of the Ohio River.
- Removed Kentucky's egg/ovary criterion for selenium because the EPA did not approve the egg/ovary criterion and industry is not utilizing this option.
- Corrected Table 1 Chemical Abstracts Service number and formatting errors in hardness-based Warm Water Aquatic Habitat criteria equations, corrected an error for chronic toxicity referring to the LC<sub>25</sub> instead of the IC<sub>25</sub>, clarified the protections for OSRWs and that the human health methylmercury fish or shellfish tissue criteria is based on wet weight.
- Added a statement allowing the suspension of PCR and SCR criteria during CSO events for a specified time and duration and compliance schedule availability that aligns with federal NPDES requirements
- Aligned exceptions to criteria requirements with federal public participation requirements
- Clarified the cabinet's authority to establish more stringent in-stream water quality criteria if necessary to protect an OSRW's exceptional aesthetic, ecological, chemical, physical, or scientific value. This proposal is necessary to address an adverse ruling from the Office of Administrative Hearings.
- Updated the Water Quality Standards Handbook-Chapter 3 (EPA) to its 2017 version
- Added a Compliance Schedule authorizing provision consistent with 40 C.F.R. 122.47

During the 2018 Triennial Review, the cabinet did not propose adoption of numeric nutrient criteria. The cabinet has found these criteria very difficult to develop because 1) effect thresholds in the data are not easily identified; 2) the effort to develop criteria will take several years of significantly more resource investment 3) the criteria would vary significantly from one region of the state to another; and 4) numeric nutrient criteria would create significant compliance challenges for community and industrial wastewater dischargers. The current narrative criteria is adequate and appropriate for Kentucky, and will provide for the implementation of a comprehensive Nutrient Reduction Strategy for both point and non-point sources of nutrients in waters.

The cabinet did not propose adoption of EPA's 2013 recommended criteria for ammonia. The regulatory/compliance impact on permitted facilities is still under examination, with additional concerns about a criteria for which a variance must be developed to provide relief for a significant percentage of permitted facilities. The cabinet did not adopt revised Human Health criteria for 94 chemicals because it is examining alternative criteria derivation methodology for human health. Additionally, the cabinet did not adopt recreational criteria for microcystin and cylindrospermopsin toxins. The cabinet chose the swimming advisory option instead of criteria development.

The legislative Administrative Regulation Review Subcommittee (ARRS) considered the proposed amendments to the regulations on November 12, 2019. The ARRS referred the regulations to the Natural Resources and Energy Committee (NREC) on December 4, 2019. The NREC did not meet to consider

these proposed regulations within thirty (30) days of referral; therefore, all of the regulations became effective on January 3, 2020.

Please feel free to contact me at your convenience should I be able to provide further information or should you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Anthony B. Hatton", written over the printed name.

Anthony Hatton, Commissioner  
Department of Environmental Protection  
Tony.Hatton@ky.gov

ARH/cjc

Enclosures

CC: Joel Hansel via email to Hansel.Joel@epa.gov